



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,277	09/30/2003	Shinichi Kiribayashi	11-195	4728
23400	7590	05/18/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			TRAN, DALENA	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

0/673277

EXAMINER

ART UNIT	PAPER
----------	-------

20050512

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Office Action Summary

Application No.

10/673,277

Applicant(s)

KIRIBAYASHI, SHINICHI

Examiner

Dalena Tran

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3661

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 3/3/05. As per request, claim 1 has been amended. Claims 4-14 have been added. Thus, claims 1-14 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, and 3-8, are rejected under 35 U.S.C.103(a) as being unpatentable over Sakai et al.(US 2002/0175490 A1) in view of Vallette et al. (6,327,528).

As per claim 1, Sakai et al. disclose a vehicle occupant detection apparatus comprising a control apparatus, and at least one load sensor for generating load data concerning a vehicle seat, control apparatus comprising: a processing section for judging vehicle occupant status based upon load data (see [0027] through [0031]), a power supply section for supplying electrical power to processing section (see figure 4, the right branch electrical connection between the power source circuit and the CPU), wherein load sensor is supplied with electrical power from power supply section of control apparatus, and control apparatus further comprises at least one connecting lead for supplying the electrical power from said power supply section to said load sensor independently of the supplying of electrical power to processing section (see figure 4, the left branch electrical connection between the power source circuit and item 20, to the load sensors

Art Unit: 3661

(21,22,23, and 24)). Sakai et al. do not disclose a communication section. However, Vallette et al. disclose a communication section for transmitting results of judgement of vehicle occupant to a vehicle occupant protection apparatus (see column 3, line 54 to column 4, line 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Sakai et al. by combining communication section for transmitting results of judgement of vehicle occupant to a vehicle occupant protection apparatus for triggering the deployment or actuation of the safety device to protect the occupant.

Also, as per claim 3, Vallette et al. disclose encoding results of judgment of vehicle occupant status, and wherein resultant encoded data are transmitted by communication section to vehicle occupant protection apparatus (see column 4, line 13 to column 5, line 33).

As per claim 4, Sakai et al. disclose the vehicle occupant status is one of empty: child and adult (see [0030] through [0032]).

As per claim 5, Sakai et al. disclose the load sensor (21,22) is provided with an element for detecting a deformation such as a strain gauge ([6620]), the CPU detect the signal provide from the load sensor ([0024]). Therefore, it is obvious that the processing section capable of indicating failure data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teach of Sakai et al. by indicating failure data to accurate detect the load signal for correctly judging occupant status.

As per claim 6, Sakai et al. disclose the load sensor produces a signal having a

Art Unit: 3661

level proportional to a strain produced by an occupant of the vehicle (see [0019] through [0021]).

As per claim 7, Sakai et al. disclose the processing section is configured to facilitate obtaining a weight value representative of a weight of an occupant responsive to load data, and checking whether the weight value exceeds at least one threshold value to determine whether a corresponding value for the vehicle occupant status (see [0030]; and [0046] through [0048]).

As per claim 8, Sakai et al. disclose wherein the results are transmitted as a serial data stream (see [0029] through [0032]).

5. Claim 2, is rejected under 35 U.S.C.103(a) as being unpatentable over Sakai et al. (US 2002/0175490 A1), and Vallette et al. (6,327,528) as applied to claim 1 above, and further in view of Breed et al. (6,555,766).

As per claim 2, Sakai et al., and Vallette et al. do not disclose analog to digital converter. However, Breed et al. disclose load sensor produces load data in the form of an analog voltage signal, and control apparatus comprises analog to digital converter for converting analog voltage signal to digital data (see columns 11-12, lines 55-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Sakai et al., and Vallette et al. by combining analog to digital converter for outputting digital signal for accurately determine the occupant status.

6. Claims 9-14, are rejected under 35 U.S.C.103(a) as being unpatentable over Sakai et al. (US 2002/0175490 A1), in view of Vallette et al. (6,327,528), and Breed et al. (6,555,766).

Art Unit: 3661

As per claim 9, Sakai et al. disclose a vehicle occupant detection apparatus comprising a control apparatus, and at least one load sensor for generating load data concerning a vehicle seat, control apparatus comprising: a processing section for judging vehicle occupant status based upon load data (see [0027] through [0031]), a power supply section for supplying electrical power to processing section (see figure 4, the right branch electrical connection between the power source circuit and the CPU), wherein load sensor is supplied with electrical power from power supply section of control apparatus, and control apparatus further comprises at least one connecting lead for supplying the electrical power from said power supply section to said load sensor independently of the supplying of electrical power to processing section (see figure 4, the left branch electrical connection between the power source circuit and item 20, to the load sensors (21,22,23, and 24). Sakai et al. do not disclose a communication section. However, Vallette et al. disclose a communication section for transmitting results of judgement of vehicle occupant to a vehicle occupant protection apparatus (see column 3, line 54 to column 4, line 13). Sakai et al. also do not disclose analog to digital converter. However, Breed et al. disclose load sensor produces load data in the form of an analog voltage signal, and control apparatus comprises analog to digital converter for converting analog voltage signal to digital data (see columns 11-12, lines 55-22). Sakai et al. also do not disclose encoding results of judgment of vehicle occupant status. However, Vallette et al. disclose encoding results of judgment of vehicle occupant status, and wherein resultant encoded data are transmitted by communication section to vehicle occupant protection apparatus (see column 4, line 13 to column 5, line 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

Art Unit: 3661

the teach of Sakai et al. by combining communication section for transmitting results of judgement of vehicle occupant to a vehicle occupant protection apparatus for triggering the deployment or actuation of the safety device to protect the occupant, also combining analog to digital converter, and encoding results of judgment of vehicle occupant status for outputting digital signal for accurately determine the occupant status.

As per claim 10, Sakai et al. disclose the vehicle occupant status is one of empty: child and adult (see [0030] through [0032]).

As per claim 11, Sakai et al. disclose the load sensor (21,22) is provided with an element for detecting a deformation such as a strain gauge ([6620]), the CPU detect the signal provide from the load sensor ([0024]). Therefore, it is obvious that the processing section capable of indicating failure data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teach of Sakai et al. by indicating failure data to accurate detect the load signal for correctly judging occupant status.

As per claim 12, Sakai et al. disclose the load sensor produces a signal having a level proportional to a strain produced by an occupant of the vehicle (see [0019] through [0021]).

As per claim 13, Sakai et al. disclose the processing section is configured to facilitate obtaining a weight value representative of a weight of an occupant responsive to load data, and checking whether the weight value exceeds at least one threshold value to determine whether a corresponding value for the vehicle occupant status (see [0030]; and [0046] through [0048]).

Art Unit: 3661

As per claim 14, Sakai et al. disclose wherein the results are transmitted as a serial data stream (see [0029] through [0032]).

Remarks

7. Applicant's argument filed on 3/3/05 has been fully considered. Upon updated search, the new ground of rejection has been set forth as above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968.

The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



May 13, 2005